

# **General Publications List:**

- [1] **R. Hippenstiel**, "Acoustic Hologram Reconstruction Techniques using a Surface Wave Device", NUC TN 1386, San Diego, CA, Sept. 1974 .
- [2] **R. Hippenstiel**, "Application of Maximum Entropy Filtering to Spectral Estimation", NUC TN 1744, Naval Undersea Center, San Diego, 1975.
- [3] **R. Hippenstiel** and N. Booth, "Acoustic Hologram Reconstructor Using A Surface Wave Device", **U.S. Patent No. 4053867**, Oct. 11, 1977.
- [4] **R. Hippenstiel** and W.S. Hodgkiss, "Cross-Spectral Component Relatedness", Quarterly Progress Report No. 2, Marine Physical Laboratory, Scripps Inst. of Oceanography, San Diego, 1979.
- [5] **R. Hippenstiel** and W.S. Hodgkiss, "Cross-Spectral Component Relatedness", Quarterly Progress Report No. 3, Marine Physical Laboratory, Scripps Inst. of Oceanography, San Diego, 1979.
- [6] **R. Hippenstiel** and W. S. Hodgkiss, "Cross-Spectral Component Relatedness", Marine Physical Laboratory, Scripps Inst. of Oceanography, MPL-U-21/79, San Diego, CA, Feb. 79.
- [7] **R. Hippenstiel** and J. McCarthy, "Directed Blade Search ", NOSC TR 473, San Diego, CA, Oct. 1979 (Secret).
- [8] **R. Hippenstiel**, "Threat-Like Dismissal", NOSC TR 668, San Diego, CA, April 1981 (Secret).
- [9] **R. Hippenstiel**, "Ridge Detection for Passive Ambiguity Surfaces", presented at the workshop on Image Processing for Ocean Acoustics, Woods Hole Oceanographic Institute, Woods Hole, MA, May 1981.
- [10] **R. Hippenstiel**, "Detection on Ambiguity Surfaces", presented at the Conference on Underwater Acoustics, Naval Postgraduate School, King Hall, Monterey, CA, June 1981.
- [11] **R. Hippenstiel**, "Automated Detection of Narrow band Signals", NOSC TR 861, San Diego, CA, Jan. 1983 (Secret).
- [12] **R. Hippenstiel**, "Processing Techniques for Non-Cooperative Target Recognition (NCTR)", Army Research Office, TCN 86218, Aug. 1986 (1st Part unclassified, 2nd Part Confidential).
- [13] J.H. Pierluissi, **R. Hippenstiel** and C.E. Maragoudakis, "Validated Infrared Transmittance Band Model for Methane in the Atmosphere: Corrigenda", Appl. Optics 24, 1985.
- [14] M. Shadaram and **R. Hippenstiel**, "Fourier Analysis of Echoes in an Optical Frequency Domain Reflectometer", Appl. Optics 25, 1986.
- [15] **R. Hippenstiel**, "Recursive ARMA Modeling", in Proc. Twenty first Asilomar Conf. on Signals, Systems and Computers, Pacific Grove, CA, Nov. 1987.
- [16] **R. Hippenstiel** and P. Oliveira, "Instantaneous Power Spectrum", in Proc. Twenty Second Asilomar Conf. Signals,

- Circuits and Computers, Pacific Grove, CA, Nov. 1988.
- [17] **R. Hippenstiel** and P. Oliveira, "Contributions to Time-Varying Spectrum Estimation Using the Instantaneous Power Spectrum (IPS)", IEEE 1989 International Conference on Acoustic, Speech and Signal Processing, Glasgow, Scotland, May 23-25, 1989.
  - [18] **R. Hippenstiel** and D. Bukofzer, "Walsh Functions and Related Rectangular Basis Functions", NPS 62-89-024, Sept. 1989, Naval Postgraduate School, Monterey, CA.
  - [19] **R. Hippenstiel**, "Smoothing of Power Spectral Densities", 33-rd Midwest Symposium on Circuits and Systems, Calgary, Alberta, Canada, Aug 15, 1990.
  - [20] **R. Hippenstiel** and P. Oliveira, "Time Varying Spectral Estimation Using the Instantaneous Power Spectrum (IPS)", IEEE Trans. Acoust., Speech and Signal Processing, October 1990.
  - [21] E. Chaulk, **R. Hippenstiel**, and James Miller, "Arrival time tracking in partially resolved acoustic rays with application to ocean acoustic Tomography", 120-th Meeting of the Acoustical Society of America, San Diego, Ca, November 1990.
  - [22] **R. Hippenstiel**, "Spectral Estimation of Short Duration Signals Using Time Domain Extrapolation", IEEE 1991 International Conference on Acoustics, Speech and Signal Processing, Toronto, Ontario, Canada, May 14-17, 1991.
  - [23] J. Miller, J. Lynch, C-S Chiu, E. Westreich, J. Gerber, **R. Hippenstiel**, E. Chaulk, "Acoustic Measurements of Surface Gravity Wave Spectra in the Monterey Bay using Mode Travel Time Fluctuations", 122nd Meeting of the Acoustical Society of America, Houston, Tex, November 6, 1991.
  - [24] **R. Hippenstiel**, E. Chaulk, and J.H. Miller, "An Adaptive Tracker for Partially Resolved Acoustic Arrivals with Application to Ocean Acoustic Tomography", J. Acoust. Soc. Am. 92, 1759-1762, September 1992.
  - [25] **R. Hippenstiel**, "Characterization/Feature Extraction from Non-Stationary Signals"; NPSEC-93-004, December 9, 1992, Naval Postgraduate School, Monterey, CA.
  - [26] M. Fargues and **R. Hippenstiel**, "Investigation of Spectral-Based Techniques for Classification of Wideband Transient Signals"; NPSEC-93-008, March 30, 1993, Naval Postgraduate School, Monterey, CA.
  - [27] **R. Hippenstiel** and M. Fargues, "Classification of Wideband Transient Signals Using Spectral-Based Techniques", in Proc. Twenty Seventh Asilomar Conf. Signals, Circuits and Computers, Pacific Grove, CA, October 1993.
  - [28] J. Miller, J. Lynch, C-S Chiu, J. Gerber, **R. Hippenstiel** and E. Chaulk, "Acoustic Measurements of Surface Gravity Wave Spectra in Monterey Bay using Mode Travel Time Fluctuations", J. Acoust. Soc. Am. 94, No. 2, Pt.1, 954-974, August 1993,
  - [29] **R. Hippenstiel**, "Analysis Using Bi-Spectral Related Techniques"; NPSEC-93-020, November 17, 1993, Naval Postgraduate School, Monterey, CA.
  - [30] J. K. Dewey, M. P. Fargues and **R. Hippenstiel**, "Electrostatic

- Target Detection: A Preliminary Investigation"; NPSEC-94-001, January 30, 1994, Naval Postgraduate School, Monterey, CA.
- [31] M. Fargues and **R. Hippenstiel**, "Robust Spectral-Based Techniques for Classification of Wideband Transient Signals", Seventh SP workshop on Statistical Signal and Array Processing, Quebec City, Qc, Canada, June 26-29, 1994.
  - [32] **R. Hippenstiel**, "Analysis Using a Bi-Spectral Related Technique", 37th Midwest Symposium on Circuits and Systems, Lafayette, Louisiana, August 2-5, 1994.
  - [33] **R. Hippenstiel** and M. Fargues, "Feature Extraction from Digital Communication Signals using Wavelet Transforms", Proc. Twenty Ninth Asilomar Conf. on Signals, Circuits and Computers, Pacific Grove, CA, October 1995.
  - [34] **R. Hippenstiel**, "Wavelet Based Approach to Transmitter Identification"; NPS-EC95-014, December 19, 1995, Naval Postgraduate School, Monterey, CA.
  - [35] **R. Hippenstiel** and Y. Payal, "Wavelet based Transmitter Identification", 4-th International Symposium on Signal Processing and its Applications, ISSPA'96, Gold Coast, Australia, 25 -30 August, 1996.
  - [36] N. Khalil and **R. Hippenstiel**, "Wavelet Transforms of Correlation Functions of Frequency Hopped Signals", Proc. Thirtieth Asilomar Conf. on Signals, Circuits and Computers, Pacific Grove, CA, November 1996.
  - [37] M. Fargues, R. Barsanti, **R. Hippenstiel**, and G. Coutu  
 $\cong$ Wavelet-Based Denoising: Comparisons Between Orthogonal and Non-Orthogonal Decompositions $\cong$ , 40-th Midwest Symposium on Circuits and Systems, August 1997, Sacramento, CA.
  - [38] M. Fargues, H. Overdyk, and **R. Hippenstiel**,  
 $\cong$ Wavelet-Based Detection of Frequency Hopping Signals $\cong$ , Thirty-first Asilomar Conf. on Signals, Circuits and Computers, Pacific Grove, CA, November 1997.
  - [39] **R. Hippenstiel**, N. Khalil and M. Fargues, "The Use of Wavelets to Identify Frequency Hopped Signals", Proc. Thirty-first Asilomar Conf. on Signals, Circuits and Computers, Pacific Grove, CA, November 1997.
  - [40] **R. Hippenstiel**, M. Fargues, N. Khalil and H. Overdyk,  
 $\cong$ Processing of Second Order Statistics via Wavelet Transforms $\cong$ , NPSEC-98-005, February 20, 1998, Naval Postgraduate School, Monterey, CA.
  - [41] C. K. Ong, **R. Hippenstiel** and T. Ha,  
 $\cong$ Performance Analysis of DPSK Signals with Selection Combining and Convolutional Coding in a Rayleigh fading Channel $\cong$ , 3-rd International Symposium on Multi-Dimensional Mobile Communications, September 21-22, 1998, SRI International, Menlo Park, CA.
  - [42] T. Conka, **R. Hippenstiel** and T. Ha,  
 $\cong$ Performance Analysis of DPSK Using Post-Detection Selection Combining over a Rayleigh Fading Channel $\cong$ , 32-nd Asilomar Conference on Circuits, Systems and Computers, Pacific Grove, CA, November 2-4, 1998.

- [43] M. Sendogan, **R. Hippenstiel**, and T.T. Ha,  $\cong$ Performance Analysis of Noncoherent DPSK with various Diversity Combining Techniques over a Ricean Fading Channel $\cong$ , Second Annual UCSD Conference on Wireless Communications, San Diego, February 28 - March 2, 1999.
- [44] P. Kontodios, **R. Hippenstiel**, and T. Ha,  $\cong$ Performance Analysis of Non-Coherent BFSK in a Nakagami-Fading Channel Using Equal Gain Combining $\cong$ , 2nd IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 9-12, 1999, Annapolis, MD.
- [45] **R. Hippenstiel**, T. T. Ha, and U. Aktas,  $\cong$ Localization of Wireless Emitters Based on the Time Difference of Arrival (TDOA) and Wavelet Denoising $\cong$ , NPSEC-99-006, May 1999, Naval Postgraduate School, Monterey, CA.
- [46] **R. Hippenstiel** and U. Aktas,  $\cong$ Time Difference of Arrival Estimation Using Wavelet Transforms $\cong$ , 42-nd Midwest Symposium on Circuits and Systems, Las Cruces, NM, August 9-11, 1999.
- [47] U. Aktas and **R. Hippenstiel**,  $\cong$ Localization of GSM Signals Using Wavelet Denoising based on the Fourth Order Moment $\cong$ , 33<sup>rd</sup> Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, 24-27 October, 1999.
- [48] T. Polychronos, **R. Hippenstiel**, and T. Ha,  $\cong$ Performance Analysis of Non-Coherent BFSK Using First, Second, and Third Order Selection Combining in a Nakagami Fading Channel $\cong$ , MILCOM 99, Atlantic City, N.J., Oct 3-6, 1999.
- [49] **R. Hippenstiel**, M. Fargues, I. Moraitakis and C. Williams,  $\cong$ Detection and Parameter Estimation of Chirped Radar Signals $\cong$ , NPS-EC-00-001, January 10, 2000, Naval Postgraduate School, Monterey, CA.
- [50] **R. Hippenstiel**, T. Haney, and T.T. Ha,  $\cong$ Improvement of the Time Difference of Arrival (TDOA) Estimation of GSM Signals Using Wavelets $\cong$ , NPS-EC-00-008, June 30, 2000, Naval Postgraduate School, Monterey, Ca.
- [51] S. Mantis, and **R. Hippenstiel**,  $\cong$ Time Difference of Arrival Estimation of denoised Unequal SNR Communication Signals $\cong$ , 34-th Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, October 29 - November 1, 2000.
- [52] **R. Hippenstiel** and S. Mantis,  $\cong$ Wavelet Denoising of Signals Based on the Fourth Order Moment $\cong$ , accepted for presentation, Sixth International Symposium on Signal Processing and its Applications, ISSPA 2001, Kuala-Lumpur, Malaysia, August 13-16, 2001.
- [53] **R. Hippenstiel**, **Detection Theory: Applications and Digital Signal Processing** $\cong$ , CRC Press, Boca Raton, FL, December, 2001, ISBN 0849304342.